Appendix A

MACT Floor Levels for Three MACT Options

Existing Sources
- Option 1
- Option 2
- Option 3

New Sources
- Option 1
- Option 2
- Option 3

Option 1, MACT Floor Levels for Existing Sources

Pollutant	Incinerators	Cement Kilns	Lightweight Aggregate Kilns	Solid Fuel Boilers	Liquid Fuel Boilers	HCl Production Furnaces
Dioxin/Furans (ng TEQ/dscm)	0.28 (0.13) for dry APCDs and WHBs; 0.40 for others	0.20 or 0.40 (0.08) + 400°F at inlet to PM control device	0.20 (0.11) ng TEQ/dscm or rapid quench of flue gas at exit of kiln to less than 400°F	CO or HC, and DRE as surrogate	3.0 (0.8) for dry apcd; CO or HC, and DRE as surrogate for others	CO or HC, and DRE as surrogate
Mercury	130 (60) ug/dscm	64 (25.4) ug/dscm *	67 (11.5) ug/dscm *	10 (7.0) ug/dscm	3.7E-6 (2.4E-6) lbs Hg in HW per MMBtu in HW *	TCl as surrogate
Particulate Matter	0.015 (0.00315) gr/dscf	0.028 (0.0107) gr/dscf	0.025 (0.0105) gr/dscf	0.063 (0.0276) gr/dscf	0.032 (0.0127) gr/dscf	TCl as surrogate
Semivolatile Metals (Pb + Cd)	59 (22) ug/dscm	4.0E-4 (2.3E-4) lbs SVM in HW per MMBtu in HW	3.1E-4 (1.2E-4) lbs SVM in HW per MMBtu in HW and 250 ug/dscm	170 (140) ug/dscm	1.1E-5 (5.1E-6) lbs SVM in HW per MMBtu in HW *	TCl as surrogate
Low Volatile Metals (As + Be + Cr)	84 (48) ug/dscm	1.4E-5 (9.0E-6) lbs LVM in HW per MMBtu in HW	9.5E-5 (2.9E-5) lbs LVM in HW per MMBtu in HW and 110 ug/dscm	210 (140) ug/dscm	1.1E-4 (3.1E-5) lbs Cr in HW per MMBtu in HW	TCl as surrogate
Total Chlorine (TCl) (HCl + Cl2)	1.5 (0.54) ppmv	110 ppmv	600 (340) ppmv	440 (240) ppmv	2.5E-2 (1.6E-2) lbs Cl in HW per MMBtu in HW	14 (3.9) ppmv or 99.9927% (99.9980%) SRE
Carbon Monoxide (CO) or Hydrocarbons (HC)	100 ppmv CO or 10 ppmv HC	100 ppmv CO or 20 ppmv HC fat main stack; or 10 ppmv at bypass	100 ppmv CO or 20 ppmv HC	100 ppmv CO or 10 ppmv HC		
Destruction and Removal Efficiency (DRE)	99.99% (or 99.9999%) for POHC					

Notes:

* Standard based on normal data; therefore, compliance will be based on an annual limit.

Option 2, MACT Floor Levels for Existing Sources

Pollutant	Incinerators	Cement Kilns	Lightweight Aggregate Kilns	Solid Fuel Boilers	Liquid Fuel Boilers	HCl Production Furnaces
Dioxin/Furans (ng TEQ/dscm)	0.28 (0.13) for dry apcds and WHBs; 0.2 or 0.40 + 400°F at inlet for others	0.20 (.08) or 0.40 + 400°F (0.16 + 375°F) at inlet to PM control device	0.20 (0.11) ng TEQ/dscm or rapid quench of flue gas at exit of kiln to less than 400°F (375°F)	CO or HC, and DRE as surrogate	3.0 (0.8) for dry apcd; CO or HC, and DRE as surrogate for others	CO or HC, and DRE as surrogate
Mercury	130 (78) ug/dscm	31 (10.6) ug/dscm *	18.7 (7.4) ug/dscm *	10 (7.0) ug/dscm	3.7E-6 (2.4E-6) lbs Hg in HW per MMBtu in	TCl as surrogate
Particulate Matter	0.015 (0.00315) gr/dscf	0.028 (0.0107) gr/dscf	0.025 (0.0105) gr/dscf	0.063 (0.0276) gr/dscf	0.031 (0.0127) gr/dscf	TCl as surrogate
Semivolatile Metals (Pb + Cd)	19 (7.7) ug/dscm	1.3E-4 (6.2E-5) lbs SVM in HW per MMBtu in HW	3.1E-4 (1.2E-4) lbs SVM in HW per MMBtu in HW and 250 ug/dscm	170 (140) ug/dscm	1.1E-5 (5.1E-6) lbs SVM in HW per MMBtu in HW *	TCl as surrogate
Low Volatile Metals (As + Be + Cr)	14 (7.4) ug/dscm	1.1E-5 (7.3E-6) lbs LVM in HW per MMBtu in HW	9.5E-5 (2.9E-5) lbs LVM in HW per MMBtu in HW and 110 ug/dscm	210 (140) ug/dscm	7.7E-5 (3.0E-5) lbs Cr in HW per MMBtu in HW	TCl as surrogate
Total Chlorine (TCl) (HCl + Cl2)	0.93 (0.42) ppmv	41 (20) ppmv	600 (340) ppmv	440 (240) ppmv	5.7E-3 (3.8E-3) lbs Cl in HW per MMBtu in	2.0 (1.3) ppmv
Carbon Monoxide (CO) or Hydrocarbons (HC)	100 ppmv CO or 10 ppmv HC	100 ppmv CO or 20 ppmv HC fat main stack; or 10 ppmv at bypass	100 ppmv CO or 20 ppmv HC	100 ppmv CO or 10 ppmv HC		
Destruction and Removal Efficiency (DRE)	99.99% (or 99.9999%) for POHC					

Notes:

* Standard based on normal data; therefore, compliance will be based on an annual limit.

Option 3, MACT Floor Levels for Existing Sources

Pollutant	Incinerators	Cement Kilns	Lightweight Aggregate Kilns	Solid Fuel Boilers	Liquid Fuel Boilers	HCl Production Furnaces
Dioxin/Furans (ng TEQ/dscm)	0.28 (0.13) for dry apcds and WHBs; 0.2 or 0.40 + 400°F at inlet for others	0.20 (0.08) or 0.40 + 400°F (0.16 + 375°F) at inlet to PM control device	0.20 (0.11) ng TEQ/dscm or rapid quench of flue gas at exit of kiln to less than 400°F (375°F)	CO or HC, and DRE as surrogate	3.0 (0.8) for dry apcd; CO or HC, and DRE as surrogate for others	CO or HC, and DRE as surrogate
Mercury	130 (78) ug/dscm	31 (10.6) ug/dscm *	18.7 (7.4) ug/dscm *	10 (7.0) ug/dscm	0.47 (0.22) ug/dscm *	TCl as surrogate
Particulate Matter	0.004 (0.0017) gr/dscf	0.0159 (0.0098) gr/dscf	0.025 (0.0105) gr/dscf	0.0648 (0.0273) gr/dscf	0.0025 (0.0015) gr/dscf	TCl as surrogate
Semivolatile Metals (Pb + Cd)	19 (7.7) ug/dscm	68 (46) ug/dscm	130 (44) ug/dscm	170 (140) ug/dscm	8.7 (4.5) ug/dscm *	TCl as surrogate
Low Volatile Metals (As + Be + Cr)	14 (7.4) ug/dscm	8.9 (6.2) ug/dscm	82 (33) ug/dscm	210 (140) ug/dscm	28 (14) ug/dscm (Cr only)	TCl as surrogate
Total Chlorine (TCl) (HCl + Cl2)	0.93 (0.42) ppmv	41 (20) ppmv	600 (420) ppmv	440 (240) ppmv	2.4 (1.5) ppmv	2.0 (1.3) ppmv
Carbon Monoxide (CO) or Hydrocarbons (HC)	100 ppmv CO or 10 ppmv HC	100 ppmv CO or 20 ppmv HC fat main stack; or 10 ppmv at bypass	100 ppmv CO or 20 ppmv HC	100 ppmv CO or 10 ppmv HC		
Destruction and Removal Efficiency (DRE)	99.99% (or 99.9999%) for POHC					

Notes:

* Standard based on normal data; therefore, compliance will be based on an annual limit.